



United States Department of Agriculture
Natural Resources Conservation Service

Wildlife Enhancement Activity - Pollinator Areas

Pollinator Areas Overview

Habitat for pollinators can be encouraged by the use of nectar producing plant corridors in non-cropped areas such as field borders, vegetative barriers, contour buffer strips, waterways, shelterbelts, windbreaks, riparian forest and herbaceous buffers.

Agricultural productivity is directly dependent on pollinators. Approximately 75% of all cultivated crops require pollination to produce seed and fruit. The majority of pollinators are insects but some birds and bats also play a major role. The services of native pollinators are worth an estimated \$4.1 billion dollars a year to U.S. agriculture. Both native and domestic pollinators are disappearing, largely due to habitat loss. Nectar corridors can provide the proper habitat for pollinators as well as other resource benefits.

Benefits

Increased habitat for pollinators will increase plant health and vigor, improve fruit set and overall quality, increase fruit size, increase productivity per acre, increase biodiversity, increase the population of beneficial insects, decrease the use of pesticides, enhance wildlife habitat, and increase the prey base for many wildlife species.

Criteria for Pollinator Areas Enhancement Activity

This enhancement requires site preparation and the planting of flowering trees, shrubs, forbs, legumes, and vines. It will also require management and maintenance of the activity.

Planting and Maintenance

Pollinator habitat areas will be at least ½ acre in size and include a minimum of ten (10) flowering plant species including forbs, legumes, vines, shrubs, and/or trees, which will comprise at least 50% of the seeding rate (by number of seeds/sq. ft., not by weight). Plantings will be composed of native species. The planting will include as a minimum three early, three mid and three late flowering species from the NRCS state list.

Some plants produce toxins that are poisonous to pollinators. California buckeye (*Aesculus californica*) and several species of rhododendron are known to produce toxic nectar and should not be used in plantings.

All site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice standards and specifications.

Once established, management or maintenance activities such as mowing, haying, burning, or grazing must be conducted outside of the growing season or period of bloom.



**United States Department of Agriculture
Natural Resources Conservation Service**

Insecticides kill pollinators and should not be used in the habitat area. Herbicides destroy plants that provide food and shelter for pollinators. Even natural herbicides and botanical insecticides can harm bees. If pesticides are used in adjoining fields, consider applying them in the evening when most insect pollinators are not active.

The habitat areas will be regularly inspected for presence of invasive or noxious plants or other weeds which may comprise the intended purpose. Invasive species should be controlled using the least intrusive method.

Any use of the Pollinator Habitat area must not compromise its intended purpose.

References:

Calder, W.A. 1997. Hummingbirds in Rocky Mountain meadows. In K. Able, ed. *A Gathering of Angels: The Ecology and Conservation of Migratory Birds*. Cornell University Press, Ithaca. p. 149-168.

Nabhan G.P. et al. 1998. The potential consequences of pollinator declines on the conservation of biodiversity and stability of food crop yields. *Conservation Biology* 12(1):8-17.

Buchmann, S. and G.P. Nabhan. 1997. *The Forgotten Pollinators*. Island Press, Washington D.C.

Nabhan, G. P. and J. Donovan. 2000. Nectar trails for pollinators: Designing corridors for conservation. *Arizona-Sonora Desert Museum Technical Monograph* 4, Tucson Arizona.

Terborgh, J.W. 1989. *Where Have All The Songbirds Gone?* Princeton University Press, Oxford.

Frankie, G. W., R. W. Thorp, M. H. Schindler, B. Ertter, and M. Pizybylski. 2002. Bees in Berkeley? *Fremontia* Vol 30: 3-4, July/October pp. 50-59